METHOD OF ACTIVE DYNAMIC RESOURCE ASSIGNMENT
IN A TELECOMMUNICATIONS NETWORK

ABSTRACT OF THE INVENTION

A method of adaptive resource allocation in transmitting data is provided. In particular, the method of the present invention is applicable to scheduling bandwidths using a modified and dynamic weighted round robin process. The method includes the steps of allocating a resource to each of a plurality of data transmitting active connections, the plurality of active connections belonging to more than one class of service. Then the method determines a lender class of service for each active connection from which resources may be reallocated to the active connection, and periodically comparing the resource usage of an active connection to an upper threshold and a lower threshold. Borrowing action for resources from the lender class of service for the active connection is carried out in response to the current usage exceeding the upper threshold, and returning action for borrowed resources to the lender class of service from the active connection in response to the current usage being less than the lower threshold is carried out.